

#### STAGE ONE REPORT-

BOSTON MASSACHUSETTS

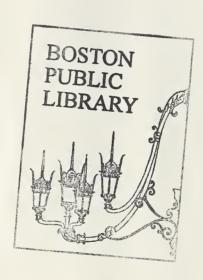
This Ten und to 1998 flows

VICTOR GRUEN ASSOCIATES

> ARCHITECTURE ENGINEERING PLANNING

(1965)

Property of BOSTON REDEVELOPMENT AUTHORITY Library







STAGE I REPORT

TO

THE COMMITTEE FOR THE CENTRAL BUSINESS DISTRICT, INC.

(CCBD)

BOSTON

1963 ?



## TABLE OF CONTENTS

#### A. INTRODUCTION

- I. The Stage I Report and Its Purpose
- II. Services to be Performed by VGA for CCBD.
- III. Purpose and Aim of Services

#### B. SUMMARY OF FINDINGS AND RECOMMENDATIONS

### I. Terminology

- 1. Terminology for Various Areas in the Boston Metropolitan Region
- 2. The Core
- 3. Core Uses and Core Functions
- 4. Accessibility
- 5. Core Transportation
- 6. Terminal Facilities
- 7. Accessibility Media
- 8. Special Purpose Roads
- 9. Pedestrian Areas
- 10. Environmental Qualities
- 11. Revitalization and Redevelopment

#### II. Planning Goals

- 1. Realization of Interdependence
- 2. Planning Goals for CBD Area



# III. Basic Planning Approach

- 1. Interdependence of Core, City and Region
- 2. Interdependence of CBD and Core
- 3. Interdependence of Core and Secondary Core

#### IV. Findings and Recommendations

- 1. General
- 2. Recommendations
  - A. Stage II
  - B. Surrounding Areas
  - C. CBD Area
  - D. Procedure

#### C. PLAYNING CONSIDERATIONS

- I. How Much Revitalization?
- II. Prerequisites
  - 1. Accessibility
    - A. Ceneral
    - B. Individual Transportation
    - C. Mass Transportation



- 2. Land Uses in the Metropolitan Region Outside of the Core
  - A. General
  - B. Land Uses and Planning Concepts Within That Part of the Core Area Which is Outside the CBD Area
  - C. Relation of Metropolitan Core to Secondary Core

#### D. PLAUTING APPROACH

- I. General
- II. Specific Concepts
  - 1. Tremont Street Terrace
  - 2. Washington Street Center
  - 3. Old Boston Center
  - 4. Park Square and Boylston Street Frontage
- III. Core Transportation



A. INTRODUCTION



A.

### INTRODE ION

## T E STAGE I REPORT AND ITS P POSE.

This report consists of four cocuments:

- Stage I report with schematic drawings (enclosed under this cover).
- Condensed Stage I report with selected schematic drawings (enclosed under separate cover).
- 3) Full size drawings, sketches, charts, and diagrams (available for review at Victor Gruen Associates, 38 Chauncy St., Boston).
- 4) An interim report was previously submitted on

  January 21, 1963. This document can be considered
  as reference material supporting the Stage I report.

The report reflects the results of services rendered in accordance with the requirements of the first stage as described in the agreement between CCBD and VGA.



## II. SERVICES TO BE PERFORMED BY VGA FOR CCBD.

An agreement was entered on August 20, 1962, providing for services in two stages. Stage I includes: research; review, analysis and programming; exploratory planning studies.

Stage II consists of further studies and discussions of the results of the proposals made in Stage I, the delineation of an overall plan, and the preparation of technical, graphic and parrative material.

The agreement provides that Stage I be completed six months after signing of the agreement, that is, February 20, 1963, with the provision, however, that this date is to be postponed if VGA does not enter into a contract with the Boston Redevelopment Authority not later than five months (January 20, 1963) after signing of the agreement. This provision was made in order to



put those additional funds which are needed for basic studies necessary for completion of Stage I at the disposal of VGA, and in order to supply VGA with needed information to be furnished by consultants to be retained by BRA.

As of April 1, 1963, VGA has been under contract with ERA. We are, therefore, submitting our final Stage I Report with, however, a slight delay due to circumstances beyond our control.

### III. PURPOSE AND AIM OF SERVICES.

The City of Boston, through its Redevelopment Authority and as part of its overall program for urban renewal, intends to proceed in the framework of redevelopment legislation concerning an area whose boundaries are shown on DRN #1. Inasmuch as this area includes major portions of the most active business and retail area of the City of Boston, cooperation from those who represent the business interests is essential. An organization representing these business interests, CCBD, was formed, and intimate cooperation between City, BRA and CCBD was established. Within this pattern of cooperation, CCBD decided to retain VGA as planning consultants, with the understanding that VGA would also be retained as planning consultants by BRA. The purpose and aim of the services which VGA is to render to CCBD is to study the requirements of the various business interests. to reflect the results of these studies in an overall planning approach and in planning concepts, to discuss this approach and concepts with CCBD in order to arrive at a mutually acceptable



basic solution which then could form the basis of the work which VGA would perform for and with BRA in order to arrive at a redevelopment plan for the project area.

The purpose of the redevelopment project is to create physical conditions which will lead to an economic revitalization of the CCBD redevelopment area.



B. SUMMARY OF FINDINGS AT TOCKMENDATIONS



В.

#### SUMMARY OF FINDINGS AND RECOMMENDATIONS

#### I. TERMINOLOGY.

In order to discuss our findings, approaches and recommendations without the danger of misunderstandings and with the desirable brevity, we are proposing certain terminology which will be used throughout this report.

- Terminology for various areas in the Boston Metropolitan Region.
   (See Drawings #2 and 3)
  - It is understood that some of the definitions do not coincide with official BRA and federal urban renewal terminology. It is felt, however, that the definitions of actual physical areas are more closely represented by the following terminology:
  - a. The Metropolitan Core (Core for short). Includes part of downtown GNRP and part of CBD. The most highly urbanized area, which ideally should contain highest productive uses and most significant urban functions as far as business, civic, cultural, recreational, social and spiritual activities are concerned.
  - b. The Secondary Core (Back Bay area).
    This is an area in which highly urbanized functions have developed, of which some are highly competitive to those functions which exist or should exist in the Metropolitan Core.



#### c. The Core Frame.

Area of dense development containing secondary urban functions, including residential development of high density.

### d. The Core Fringe.

An area containing facilities serving directly the
Metropolitan Core and the Secondary Core but of lesser
productivity and density than occurring in the Core
Frame.

Areas a thru d correspond generally to the BRA definition of Regional Core.

## e. The Urbanized Area Within City Boundaries.

An area partially within the City boundaries serving to a large degree residential purposes which are, in the majority, of a multiple dwelling type but also containing industry and other urban functions.

- f. The Urbanized Area Outside City Boundaries.
- g. The Suburbanized Area Within City Boundaries.

  Located partially within the City limits but of lower usage density, devoted mostly to single residential units and to a more sprawling development for other urban

# h. The Metropolitan Region.

functions.

All areas outside of the City limits which, however, depend as far as employment and interests of its



inhabitants and other urban activities are concerned, to more than 50 percent on the economic life of the City of Boston. Within this area are to be found highly developed areas representing centers of towns, cities and villages which, originally independent, have become economically part of the metropolis and vast areas of low density development containing single residences, shopping facilities, industry and other functions.

### 2. The Core.

Within the Metropolitan Core, (see Drawing  $\frac{n}{\pi}3$ ) a number of function areas are discernible.

### a. Government Center.

The boundaries of this area have been recently enlarged by the government center redevelopment project. This area, however, belongs in its totality, on the basis of its functions, to the Core.

#### b. CBD.

The boundaries of this area are set within the redevelopment project. The larger part of this area belongs functionally to the Core. A smaller part seems to us to belong functionally to the Core Frame. The CBD area includes the highest developed retail functions, part of the Financial Center, the Entertainment District, a significant portion of tourist functions, and a number



of other functions which will be dealt with further in discussing the planning approach.

### c. The Financial District.

This is partly included within the CBD area but the larger portion lies outside of the boundaries of CBD.

### 3. Core Uses and Core Functions.

#### a. Suitable Uses.

With this term we are referring to those uses which, because of their inherent qualities, (high productivity per square foot of occupied space or regionally oriented activities) serve special needs and requirements of the inhabitants of the entire Metropolitan Region. These require a central location and must express the highest quality of civic, cultural, social and recreational activities.

## b. Unsuitable Uses.

I and uses which, because of low productivity per square foot or because of the creation of disturbances, do not contribute to the economic and physical health of the Core.

## c. Utilitarian Functions.

With this term we characterize serving functions, usually mechanized, and needed in order to operate the Core successfully. Such functions include the



sewer system, electrical and telephone cables, water and gas lines, and all mechanized transportation - that is, rapid transit lines, railroads, automobiles, buses, trucks, etc.

#### d. Human Functions.

Those functions which are mostly carried out by people with only minor assistance by mechanical equipment.

#### e. Core Activities.

The sum of Human Functions, such as work, shopping, sightseeing, residing, participation in civic, social, cultural, recreational and spiritual events.

## f. Activity Participants.

Those persons who participate in the Core Activities.

### 4. Accessibility.

# a. Easy Accessibility.

A term denoting ease of travel to and from the Core for large numbers of people from all land use areas which make up the Metropolitan Region.

# b. Individualized Transportation.

Instruments of Accessibility which are individually utilized by a small number of people, (like private automobiles, taxicabs, bicycles, motorcycles, etc.)

# c. Mass Transportation.

Instruments of Accessibility which are used by large numbers of people within one vehicle, such as railroad



trains, rapid transit trains, buses and, in the near future hydrofoil ferrys, commuter helicopters, etc.

d. Transportation of Goods.

Instruments of Accessibility for goods of all types and includes such instruments as trucks, railroads, and possibly instruments like conveyors.

### 5. - Core Transportation.

- a. Foot Traffic.
- Mass Transportation Over Short Distances by Rapid
   Transit, Buses and Possibly New Instruments.
- c. Taxicabs.

Transportation by private automobile within the Core Area does not appear a suitable Core Transportation Instrument.

# 6. Core Terminal Facilities.

This term denotes the end or starting points of Instruments of Accessibility to the Core.

- a. Commuter Train Terminals.
- b. Railroad Terminals.
- c. Bus Terminals.
- d. Individualized Transportation Terminals (parking garages).
- e. Water Traffic Terminals.

  Etc.



# 7. Accessibility Media (for individual and mass transportation).

a. Radial Expressways.

Public roads which are routed radially toward the Core.

b. Distributary Poads.

Roads which follow the pathers or concentric rings around the Core at various distances, often referred to as Ring Roads or Loop Roads.

c. Core Bound Mass Transportation.

Railroad lines, rapid transit lines, bus lines routed radially toward the Core.

d. Distributary Mass Transportation.

Mass Transportation lines routed along the lines of concentric circles in various distances around the Core.

8. Special Purpose Roads in the Core.

Public roadways not serving general transportation needs but reserved for special requirements only, such as:

- a. Car storage roads leading from general traffic roads to existing or projected garages to be utilized for access and egress to such car storage facilities only.
- Service Roads serving Accessibility of loading and unloading facilities and for repair crews only.
- c. Emergency Roads utilized by emergency vehicles like fire equipment, ambulances, etc.



#### 9. Pedestrian Areas.

Public surfaces reserved for pedestrians only, with the exception of emergency vehicles.

### a. Protected Pedestrian Areas.

Pedestrian Areas which are protected from sunshine and inclement weather by overhangs, colonnades or arcades.

### b. Enclosed Pedestrian Area.

Public surfaces roofed over and separated from open areas by enclosures and doors which are ventilated, air conditioned, heated and cooled.

### c. Terraces.

Raised platforms above roadways with the surfaces of the platform reserved for pedestrians only.

# 10. Environmental Qualities.

Qualities which influence the wellbeing, safety, comfort and enjoyment of the Core Activity Participants, such as:

- a. Protection of Safety and Health.
- b. Protection from Sunshine, Wind and Weather.
- Opportunities for Resting and Relaxing.
- d. Protection from Disturbing Influences on the Human Senses -Seeing, Fearing, Smelling.
- e. Satisfaction of Human Senses Through, Order, Color, Shape.



#### 11. Revitalization and Redevelopment.

## a. Vitality:

A condition of highest Core Activity, achievable without lowering of Environmental Qualities.

### b. Devitalization:

Lowering of Vitality.

#### c. Revitalization:

Raising of Vitality - the goal of the planning effort.

### d. Redevelopment:

This term denotes the physical measures necessary to make possible and encourage Revitalization.



II.

#### PLANNING GOALS

The overall goal is to bring about Revitalization of the Metropolitan

Core through the process of Redevelopment.

### 1. Realization of Interdependence.

Inasmuch as the CBD project area, with which our services are directly concerned, is an integral part of the Core, the success of Revitalization efforts for the CBD area is dependent on the success of the total Core area which includes the Government Center, the Financial District, and other areas outside of the CBD boundaries but inside the Core.

Inasmuch as the Core represents the focal point of the entire Metropolitan Region, the success of its Revitalization depends on "Accessibility" and on the development of all other areas within the Metropolitan Region in a manner sympathetic with the aim of Revitalization of the Core. This is to the highest degree true for the development of the Secondary Core and of the development of the Core Frame, but it is also true for the development of the Core Fringe, the Urbanized Area, the Suburbanized Area and the Metropolitan Region.

Due to the existence of this interdependence, the planning goals

cannot restrict themselves to the project area but have to be

extended to include all influencing factors within the Metropolitan



Region. The planning goal of Revitalization of the Core could not be achieved without assurances for satisfactory solutions of problems referring to areas lying outside the CBD Redevelopment area.

# 2. Planning Goals for CBD Area.

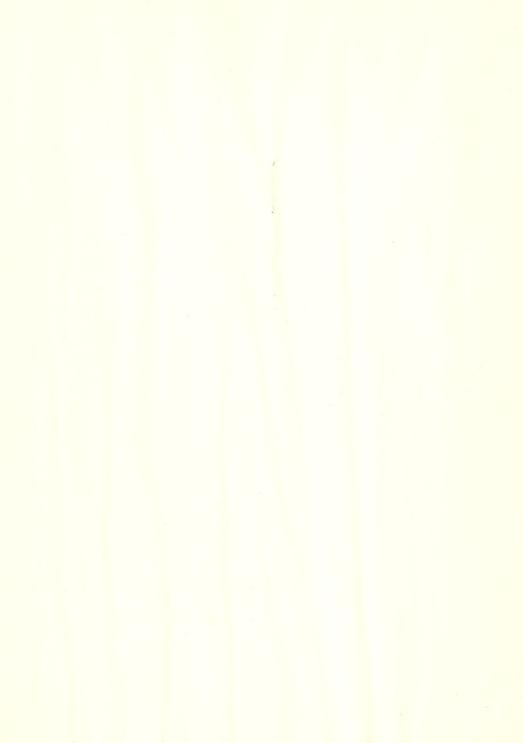
- a. Increase of Suitable Land Uses.
- b. Exclusion of Unsuitable Land Uses.
- c. Improvement of Core Transportation.
- d. Separation of Utilitarian Functions from Human Functions.
- e. Increase of number of the daily Activity Participants.
- f. Improvement of Environmental Qualities.



#### III.

#### BASIC PLANNING APPROACH

- 1. Interdependence of Core, City and Region.
  - We have studied the area surrounding the CBD area and our general approach is the following:
  - a. The Vitality of the Core has been on the downgrade over the last twenty to thirty years in absolute figures as well as in relation to overall growth of the Metropolitan Region. The reasons for this phenomenon are multiple, but more important factors seem to be:
    - A dwindling of population within the Core but also within the Frame, the Fringe, the Urbanized Area, the Suburbanized Area within the City limits; and in contrast to this, a rapid population growth in the further outlying Metropolitan Region.
    - Decrease of Accessibility of the Core, partly due to the outward movement of population, partly due to a switching of usage from Mass Transportation to Individualized Transportation, and partly due to the lack of Mass Transportation improvements and extensions.
    - Exodus of Suitable Core Uses to other areas and this concerns especially retailing and offices.



b. The planning approach for areas outside the CBD area must therefore be directed toward the reversal of trends which have existed in the past and are still continuing to operate:
i.e., improvement of Accessibility, especially by Mass
Transportation; encouragement of population growth within
Core, Frame, Fringe, and generally within the incorporated
City area for diversified economic groups in high and medium density development; and discouragement of further construction serving Suitable Core Functions outside of the Core area.

# 2. Interdependence of CBD and Core.

We have studied the Core area outside the CBD boundaries. The goal here must be to make an integrated function of the entire Core achievable. Of special concern is the encouragement of Suitable Land Uses for the various nuclei of the Core following the principle that though each nucleus should include a variety of land uses, in each one emphasis on its historical and traditionally developed land use should be established.

Intimate connection between the various nuclei by Core Transportation, whether on foot or by other media, must be established.

# 3. Interdependence of Core and Secondary Core.

We have studied the Secondary Core and found that it is in many respects competitive to the Metropolitan Core by the establishing in this area of structures which contain Suitable Core Uses. The Secondary Core will be immensely strengthened once the Prudential



Center, now in construction, is completed. Inasmuch as the Secondary Core is an established fact, the planning goal must be to create highest possible advantages for the future of the Secondary Core in such manner that these advantages also become advantageous for the Metropolitan Core. This can be achieved by (a) intimate connection through improved transportation between Metropolitan and Secondary Core, (b) emphasis on the already apparent difference in land use and functions between Metropolitan Core and Secondary Core.



IV.

#### FINDINGS AND RECOMMENDATIONS

#### 1. General

On the basis of research work and studies undertaken to date we feel that the goal of Revitalization of the CBD area is attainable. The Revitalization program has to be undertaken within the framework of the Redevelopment of the Metropolitan Core. The Core has important and impressive assets: Its central location; its potentially excellent Accessibility from the Metropolitan Region; its compactness and intimate scale; its variety and versatility; and its historic character; its superior urban recreational areas, especially the Common and the public gardens; and potential connection to water; the existence of superior retail, banking, civic, cultural, hotel and eating facilities; the existence of a basically effective public transportation system; its close relationship to supporting residential districts; and most of all the manifest will of business interests and government alike to proceed in closest cooperation toward the aim of Revitalization.

#### 2. Recommendations:

a. Stage II. In view of these general findings we recommend
that the efforts of CCBD'S planning consultants as outlined
in Stage II should be started as soon as the following
conditions are fulfilled:



- After thorough discussion of the Stage I concepts and the reaching of general agreement concerning those concepts or alternates.
- 2) After BRA has signed contracts with a number of consultants, of which the Traffic Consultant, Mass Transportation Consultant and Marketability Consultant are the most significant ones for this project, and after these Consultants have progressed sufficiently with their work to be able to furnish CCBD and its planning consultants with basic information needed.

## b. Surrounding Areas.

The success of any attempt to revitalize the Metropolitan Core is tied to the ability of reversing certain trends which have been the cause of Devitalization of the Core in the past 20 to 30 years and which are still operating.

We find that though some of these trends express their manifestations within the CBD Area the actual origin of the trends is to the largest degree to be found outside of the CBD area.

We, therefore, recommend that CCBD establish closest cooperation with BRA in order to achieve fullest understanding and agreement concerning those measures which are necessary if a reversal of the trends influencing negatively the Vitality of the Core is established. We are referring here especially to all problems which have to do with Accessibility, with measures which would



encourage population growth within the incorporated areas of the City of Boston but quite especially with increase of the number of residents in the Secondary Core, the Core Frame and the Core Fringe. We further have in mind measures which would on the one hand permit the relocation of Unsuitable Uses now located within the Core into the Core Frame or Core Fringe, or other areas within City limits, and on the other hand discouragement of construction of buildings which may be used for land uses which are Suitable for the Core in order to stop the dilution of such Core-suitable uses in the entire Metropolitan Region. We regard the measures described above as PREREQUISITES for the success of any attempt to Revitalize the Metropolitan Core.

#### c. CBD Area

With regard to the CBD redevelopment area itself we find that the present unsatisfactory economic condition is caused to a lesser degree by the physical conditions of the CBD structures and to a larger degree by a faulty functioning pattern.

We generally recommend remodeling, rehabilitation, and spot clearance in most areas, and clearance with the construction of new buildings in limited areas. We recommend measures which would bring fullest effectivity to the now hidden assets of historical buildings and areas.

Most of all, we recommend a change in the outdated functioning



pattern and an improvement of environmental quality. Quite generally these recommendations are to be implemented through:

- 1) Separation of Utilitarian and Human Functions which necessitates separation of surface mechanized traffic from high activity areas and, therefore, the introduction of Pedestrian Areas. We recommend that some of these areas be established as Protected Pedestrian Areas and others as Enclosed Pedestrian Areas.
- 2) We further recommend the improvement of the Core Transportation System with regard to the transportation of people as well as of goods.
- We recommend the construction of high rise middle and upper-middle class residence quarters in certain CBD areas.
- 4) We recommend the removal of Unsuitable Uses from the CBD

  Area and on the other hand an increase of the Suitable

  Uses.
- 5) We recommend measures of conservation and rehabilitation combined with some spot clearance and the construction of new buildings within the main activity areas.

#### d. Procedure

We recommend that the complete report for Stage I be studied not only by the Executive Board but by the executives of individual stores and other downtown enterprises. We recommend that the CCBD should reproduce not only the text of the Report



but also the illustrations in a sufficient number of copies to make them available not only to heads of enterprises but also to other leading executives within each enterprise. We recommend that after a one-week study period the Report then should be discussed with executives of VGA and executives of those enterprises most vitally interested in the plan in individual meetings and that only after such individual conferences and discussions have established full understanding of all features of the Report a meeting of the CCBD Executive Committee should be held in order to approve or disapprove the final report on Stage I and to authorize or not authorize the services provided for under Stage II. We realize that this is a time-consuming process but we also believe that there is no short cut to it. It might thus very well be that an official decision by CCBD concerning the first stage and the authorization of the second stage might be delayed by anywhere from 4-10 weeks. During this waiting period we will de facto be proceeding with Stage II work but we will do so within the framework of the BRA contract which requires the same type of services. If by August 1, 1963 CCBD should not authorize the starting of Stage II services, then the possibility exists that BRA could make use of its right to cancel its contract with VGA. If CCBD should authorize the rendering of services under Stage II but if this authorization should be given under conditions which in the opinion of VGA would be in contrast to the planning principles which in the opinion of VGA have to be



adhered to in order to effectively bring revitalization of the Core area of Boston about, then VGA may use their right of cancelling the BRA contract as provided.



VICTOR GRUEN ASSOCIATES

C. PLANNING CONSIDERATIONS



C.

### PLANNING CONSIDERATIONS

#### 1. HOW MUCH REVITALIZATION?

For any program to be successful it is necessary to pre-establish the desired goal.

It is generally agreed that the overall aim is Revitalization of the Metropolitan Core and that this goal is to be achieved by Redevelopment. It is also agreed that by Revitalization we mean greater economic productivity within the area to be redeveloped and this greater productivity will be most clearly expressed in an increase of the number of Core Activity Participants. What has not been clearly defined is the question, how much Revitalization are we striving for, and how much is actually feasible. In order to clarify this question a number of avenues of approach are possible:

What was the highest rate of vitality of the CBD area and when was this highest rate achieved? (See Chart #1) We have attempted on the basis of very incomplete information to find answers to these questions. It appears that the time of highest Vitality was in the 1920's and that at that time retail volume of the department stores, for example, was 20% above 1962's volume. It would be highly desirable to have more exact information as to the year of highest Vitality and the figures which express this Vitality. We would hope that these figures could be furnished by the Economic Consultant of BRA.

What fa



It would be desirable if this information could be given for the Core as delineated by us and specifically for the CBD Area located within the Core. We would like to see these figures broken down as to highest attained economic results with regard to:

- Total Retail volume
- Total square footage of productive facilities of all types
- Hotel rooms occupied
- Restaurants operating
- Theaters, meeting rooms, concert halls, movie theaters,
   night clubs, bars, etc., operating
- Number of Core residents
- Income level of Core residents
- Number of Core Activity Participants on the average week day this number would be composed of the sum total of Core residents and persons visiting the Core and the CBD area for purposes of shopping, working, sightseeing, as tourists, and as participants in social, civic, cultural, recreational and spiritual events)

We would further hope that the Transportation Consultant could furnish us with figures for the year of highest Vitality concerning the means of Transportation, the Activity Participants used during that year on an average week day:

What E

- How many on foot as residents of the Core
- How many on foot as residents of surrounding Core Frame and Core Fringe



- How many by various means of Mass Transportation
- How many by Individual Transportation

We would then like to be furnished with the corresponding data from the Economic and the Transportation Consultants for the average business day of 1962.

A comparison of this data would furnish conclusive clues by which the Devitalization of the Core and the CBD could be accurately measured.

By this method we would arrive at an answer to which degree

Revitalization would be possible without any marked degree of addition

of physical structures and, assuming that in spite of the fact that the

regional population has grown significantly, the number of activity

Participants would only be equal to that of the high Vitality year when

regional population was much smaller.

A second method is possibly the establishment of the ultimate physical limit to which productive facilities and residence quarters could be constructed in the Redevelopment area without causing undue congestion and friction within an improved pattern of function. On the basis of such a study one would then arrive at the number of workers, shoppers, visitors of all types, and residents who would become Participants in Core Activities and for whom, therefore, adequate Accessibility would have to be created. It is to be assumed that figures resulting from the second method would be significantly higher than those derived from the first method.



The information provided in these areas can be helpful to BRA and CCED in determining how much revitalization is desired. Should it be of an impact equal to the Vitality of an optimal year in the past? Would it be satisfactory if it were less? Should it be the theoretically possible maximum or should it be somewhere between the Vitality once achieved in the past and the theoretical maximum?

Once such an answer is at least theoretically given, it will be possible to establish whether an improvement of the prerequisites lying outside of the CBD area can be obtained, which measures would be necessary to obtain it, and whether funds for implementation of these measures will be available. On the basis of these findings then, the goal figure for the degree of Revitalization desired and feasible can then be developed.

We are fully aware of the fact that the critical question will be to which degree the prerequisites necessary to achieve such Revitalization can be established. In the next part we, therefore, will discuss in broad outline these prerequisites.



II.

## PREREQUISITES

## INTERDEPENDENCE OF PREREQUISITES

We are summarizing the prerequisites under two main headings:

- 1. Accessibility.
- 2. Land Uses in the Metropolitan Region Outside the CBD.

These prerequisites are closely interrelated with each other and are also both related to the effects of Redevelopment of the CBD Area.

Revitalization of the Core will increase the desire of regional inhabitants to become Core Activity Participants and thus will bring about a high utilization of Accessibility Media.

Revitalization, on the other hand, would be frustrated if the desire to become a participant were to be dwarfed by faulty Accessibility or if land usage of the area outside the Core were to be contrary to the aims of Core Revitalization.

The quality of Accessibility will also be greatly influenced by the quality of land usage outside the Core. Inasmuch as a large segment of Accessibility will have to be provided by Mass Transportation, land usage should be such as to encourage patronage of Mass Transportation. Quite generally speaking, sprawling residential land usage can only be served by Individualized Transportation. On the other hand, clusterization of high density residential usage around existing or future outlying Mass Transportation terminals encourages patronage of Mass Transportation. The planning of transportation therefore



cannot be approached independently by transportation experts but must be part of the overall planning efforts, and transportation planning must then devise those means of Accessibility best suited for the established or to be established land usage patterns.

## 1. Accessibility

### a. General

Let us assume for a moment that considerations concerning the desirable degree of Revitalization would lead to the conclusion that the number of Core Activity Participants would have to be increased by 25% in order to permit the following:

- Increase of sales volumes in existing retail stores, restaurants and similar enterprises.
- The creation of additional sales volume for additional retail stores, restaurants and similar enterprises.
- Higher occupancy rates for hotels, theaters and entertainment and recreational facilities.
- 4) An increase of audiences for existing and new theaters, concert halls, movie theaters, etc.
- 5) Satisfactory occupancy rates for new and existing office buildings.

If 25% more people than now are to be Core Activity Participants, ways and means must be found to bring them in and out of the CBD Area in a manner offering sufficient convenience to encourage such visits.

A small amount of the total percentage increase, but yet a significant



one, could be achieved by increasing the number of residents, especially of higher income groups, within the Core and in the surrounding Core Frame areas. The much larger increase, however, will have to come from areas sufficiently removed from the CBD area to make the use of Transportation necessary.

In order to bring about such increase by Individualized Transportation, it would be necessary to create additional surface movement space to and around the CBD area and to construct car storage facilities in sufficient number and in locations closely enough related to the CBD to make transfer on foot or by internal transportation within the CBD practical and convenient.

Though we believe that it is theoretically possible to increase the number of Core Bound Roads outside of the Core area even though this might be costly, we feel that there are very definite limitations on the possibility of increasing traffic surface in the immediate vicinity of the CBD and in greatly increasing the amount of car storage facilities. Inasmuch as compactness and coherence is one of the main attributes of an economically successful city Core, interruption of this Core area by new transportation surface and new car storage facilities is undesirable. Yet inasmuch as a large system of Radial Expressways is already in existence or definitely projected, every effort will have to be made to provide essentially needed additional traffic capacity and car storage space for Individualized Transportation. The maps illustrating our concepts, therefore, show various alternates for improvement of the road system and also indicate areas



for potentially possible new car storage facilities. (See Drawing #7 ) Whether or not any or all of these potential locations can actually be utilized or especially what the size of the individual new facilities could practically be will depend on the results of studies of traffic consultants to be retained by BRA and on BRA's recommendations concerning possible spot clearance for building these car storage facilities.

We, therefore, conclude that the lion's share of improved

Accessibility will have to be accomplished by improvement of Mass

Transportation, and we believe that the degree to which ridership
on Mass Transportation can be increased will furnish a decisive
answer to the question "How Much Revitalization"?

# b. Individualized Transportation

Heroic steps have been undertaken in the past to increase

Accessibility by Individualized Transportation. An outstanding

example of the efforts is the construction of the Central Artery.

Drawings #4 and 5 illustrate the system of Private Transportation

Media now in existence or definitely projected. Our studies seem to

indicate that shortcomings in the system result from an overbuilding

of Core Bound Roads and an underbuilding of Distributary Roads.

This results in distribution of automobile volume being unable to

keep pace with the volume which is brought into the Urbanized Area

by Core Bound Roads. The drawings illustrate the circulatory roads,

namely Route 128 and the proposed Inner Belt. The need for at least

one important additional main circulatory road becomes evident if one



observes the character of traffic now using the Central Artery.

Drawing #6 shows that the Central Artery, originally conceived in order to bring motorists into the Core area, is to the largest degree utilized by motorists who do not intend to become Core Activity Participants but are rather traveling from one portion of the Metropolitan Region to another or even from one outlying city to another. If the Central Artery is to be made to serve the purpose of improved Accessibility to the Core, measures would have to be taken to allow through traffic to bypass it. Recommendations and studies of traffic and transportation were submitted in the interim report. It is hoped that reference to this material would be made to further clarify the major transportation problems.

In the search for areas for car storage facilities of significant size and satisfactory Accessibility and relationship to the Core, the following possibilities were considered and are recommended for future study: (see Drawing #7)

1) South Station Terminal: The projected New England Turnpike Extension into the Core area makes the construction of a major car storage facility in this area mandatory and a further large number of parking spaces would become usefully active if the Central Artery could be freed from at least part of the present through traffic. We believe that the



construction of about 7,000 car spaces should be considered in this area but we recommend urgently that South Station Terminal should be developed as a terminal for Mass Transportation as well as for Individualized Transportation. We recommend that the establishment of a long-distance and regional bus terminal should be studied. By the construction of such bus terminal, the existing bus terminal facilities within the Core which create disturbances could be removed. We further feel that South Station should continue to be a terminal for commuter trains. We also believe that the South Station area could become a terminal for waterbound traffic and that by using it thus as a multi-purpose terminal, it could gain sufficient importance as an entrance gate to the entire Core area, and thereby justifying the construction of internal Core Mass Transportation Facilities connecting the South Station Terminal with the heart of the Core area.

- 2) The under-the-Common garage was originally planned for double its present size. We believe that the garage is basically in a poor location. Yet we recommend its enlargement to the originally planned size of 3,200 parking spaces for the following reasons:
  - a) The enlargement portion would be located in closer
     vicinity to the Core than the initially constructed portion.



- b) A greater overall capacity would make the construction of a transportation system connecting the garage intimately with the Core area economically possible whereas the present size cannot even support the shuttle bus system (we visualize an underground moving belt system as indicated on our drawing # 12).
- c) The larger size, the closer proximity to the Core and the transportation system from the garage to the Core will encourage much greater usage of the currently under-used garage.

We believe, in other words, that though the garage as presently constructed may be a poor investment, an enlargement to double its size will make it a considerably better one. In recommending the enlargement of the under-the-Common garage we are also moved by the fact that it is one of the few locations available for creating additional car storage space.

It is also realized that a careful traffic analysis of the crosstown movements on Charles Street, the Park Square area, and Charles Circle, must be made before the garage is formally recommended.

3) Garage on North End of Washington Street: A garage in this vicinity is presently projected and we believe that if properly placed and constructed it could serve a useful purpose in contributing to care of the needs of both



Government Center and the Washington Street Center.

4) A major car garage in the area of the present Garment Center and in the Core area adjoining South Station will be discussed later when we consider planning concepts for the CBD area.

On Drawing #7 we have indicated locations which could be potentially considered for additional car storage facilities in immediate proximity to the enterprises of Washington Street Center. Whether or not these potential locations can actually be utilized will depend on the findings of the traffic consultant of whether the in and out movements of cars which such storage facilities would generate, could be added to essential movements of service vehicles -- trucks, buses, taxicabs -- which will have to utilize the circulatory road network without creating traffic congestion. The desire of many merchants in the Washington Street area is to have these nearby garages serve exclusively the needs of shoppers. If this aim is to be realized, then it is essential that all of these garages are built as self-parking facilities as otherwise labor cost would cause operators to charge more to the short-time parker than to the long-time parker which indeed is the pattern presently prevailing in most downtown Boston garages. It would also be essential to form some kind of organization which will take on the responsibility to control the parking rates and it may be necessary to postpone the opening time of these garages in such manner that they couldn't be utilized by regular employees



of the Core area. In deciding whether or not the potential locations should be utilized for the construction of car storage facilities and to which extent they should be utilized, serious consideration should be given to the following factors:

- Traffic congestion which such garages might create would have
  the tendency to keep people who would otherwise utilize Mass
  Transportation Media, including buses and taxicabs, out of
  the Core area and thus the opposite result from the one desired
  would be achieved.
- 2. The usage of Mass Transportation will be encouraged only if advantages are offered to its passengers which are greater than the ones offered to the user of Individualized Transportation. Thus the availability of large amounts of low cost parking spaces in immediate proximity of the Washington Street Center enterprises might counteract the advantage of the availability of Mass Transportation terminals within the Washington Street Center and thus wipe out totally or partially one of the most important advantages that Mass Transportation could offer.
- opinion, required. However, these garages would only indirectly serve the Core by being arranged directly adjoining outlying terminals and station stops of Mass Transportation Media. Their purpose shall be the encouragement of transfer from Individualized Transportation to Mass Transportation before congested transportation surfaces in the Urbanized Areas are reached.



# C. Mass Transportation (See Drawing #8 and 9)

In order to make Mass Transportation utilized to a higher degree than it presently is, in order to reverse the downward trend in the number of passengers carried, which has existed over the last years and is still continuing, it is necessary to apply a large variety of measures which, in their sum total, will have the following effects:

- Widening of the population group which could conveniently avail itself of mass transit.
- 2) Improvement of speed and convenience markedly so that people who up to now have preferred to use their private automobiles would find mass transit preferable, and
- 3) Encouragement of use by a persuasive rate structure for fares.

In connection with (1) analysis reveals that up to now the population group which could conveniently avail itself of mass transit has shrunk. Boston mass transit (the MTA system with its supporting branch bus lines) serves an area, within the City limits of Boston, whose population has decreased between 1920 and 1960 by 7 percent. Opportunities would therefore have to be created to tap the dynamically growing population market which has settled outside of the City boundaries and outside the MTA district in the Metropolitan Region where population has increased in the same time period by 85 percent. It is doubtful, however, whether this population group can be served by conventional rapid transit media because of the sprawling character of regional, residential development and because of the long distances entailed.

As to (2) speed does not necessarily have to be improved by



speedier trains alone. The question of speedy transfer from bus lines and private cars to mass transit by arrangement of additional bus lines with shortest and most comfortable transit conveniences and by arrangement of outlying parking lots surrounding stations within a maximum distance of 600 feet from the farthest parked car will achieve shorter overall transportation for travel times. Greater convenience can be achieved by a wider range of measures like modern rolling equipment; clean, cheerful, convenience termini and, especially within the Core area, modern terminal facilities with escalators and moving sidewalks. Serious consideration should be given to commuter lines which, as the Philadelphia example has shown, can improve their operation considerably by the introduction of modern equipment, frequent scheduling, low rates, and terminal facilities which are either closely related to the Core or which are connected with the Core by adequate public transportation.

In the section of the Interim Report concerning transportation developed by our Transportation Department, attention is given to a table in which comparative travel times and transportation costs for various Accessibility Media are listed. One of the results apparent from this table is that travel times for combined usage of transportation instruments (either automobile plus MTA or local bus plus MTA) are the most time consuming. A second fact which the table reveals is that the cost of Accessibility of the Core is alarmingly high, amounting for the average commuter living 20 miles distant from the Core to a low of \$2 per day and a high of \$5.75 daily.



Lowest cost and shortest travel time could be obtained only by those Core Activity Participants who would be able to use one single instrument of Mass Transportation from residence to Core.

The possibility for such single usage of one Mass Transportation instrument would exist for persons living in residences located within walking distances from an outlying Mass Transportation terminal. They would be freed from the need of keeping up a second car and from time-consuming and costly transportation by secondary transportation instruments. Thus, it would appear that a most significant contribution for Accessibility - and therefore Revitalization of the Core - could be made by planning and construction of clusterizations of high density residential developments located within walking distance of existing or future Mass Transportation Facilities.

#### 2. Land Uses in the Metropolitan Region Outside of the Core

#### A. General

The BRA cooperated with us fully in directing their planners to acquaint us in detail with planning concepts in the development stage for various areas within the City limits.

# B. Land Uses and Planning Concepts Within That Part of the Core Area Which is Outside the CBD Area

Plans for these projects were put at our disposal through the cooperation of BRA. Discussions were held and the content of these discussions is also reflected in correspondence.



## C. Relation of Metropolitan Core to Secondary Core

The Secondary Core, referred to as the Back Bay area, is in many respects competitive to the Metropolitan Core and without any doubt has, in the past, damaged the Metropolitan Core economically by the fact that office buildings, retail stores, and various business enterprises which functionally contain Suitable Core Uses were extricated from the Metropolitan Core. The reason for the exodus of headquarters buildings for insurance companies, general office buildings of stores was probably congestion and unattractive Environmental lities within the Metropolitan Core.

aim of the Revitalization program for the Core is to establish improved access to the Core and an improved Environmental Quality, and thus it can be hoped that the pull to the Back Bay area for those business enterprises which are competitive to the Core will be reduced in the future.

The Secondary Core, however, will be immensely strengthened, through the Prudential Center with its office buildings, a hotel, a convention hall and stores now under construction. Thus, the existence of the Secondary Core is an established fact. It therefore seems to be fruitful to investigate what differences, if any, exist between the character of activities within the Metropolitan Core and the Secondary Core.

As far as retail is concerned, it appears obvious that the Metropolitan Core has been able to hold on to mass merchandising enterprises, (the large department stores, the chain stores and



the lower priced specialty stores). The Secondary Core, on the other hand, has been able to attract some higher priced specialty stores and some stores catering to a more sophisticated clientele.

As far as office buildings are concerned, it would appear - and

the Economic Consultant will give us exact figures about this that office employment, which has been retrogressive in the Metropolitan Core, has increased in the Secondary Core and will go even
more once the Prudential Center is completed.

The two Core areas are about a mile distant from each other a distance small enough to justify an attempt for establishment of
a more intimate connection, especially by Mass Transportation.

We would recommend in general that the differences in the characteristics of the two Core areas be stressed further, and that apartment buildings for medium income groups be encouraged in the Secondary Core. On the other hand, we would hope that office, cultural, or civic buildings, beyond those in existence or under construction, would be minimized until the prosperity of the Metropolitan Core is assured.

If these recommendations are followed and if connection between the two Core areas by public transportation could be improved, benefits for both Core areas could be gained. Specialized trade for higher priced goods originating from the financial district, the



new waterfront development, and the Beacon Hill area within the Back Bay area would be further encouraged. The office workers and inhabitants of new apartment houses would find it easy, on the other hand, to reach Washington Street Center in order to make their purchases. The old Boston Center would be put within easy reach of the hotel guests of the Back Bay area, and the Entertainment Center in the Core could serve effectively office workers, hotel guests and residents of the Back Bay area.







D. PLANNING APPROACH



D.

#### THE CBD AREA PLANTING APPROACE

#### I. GENERAL

We are striving to create a new function pattern for the total

Metropolitan Core, and specifically for the Redevelopment area, with the

aim of achieving a maximum of compactness, separation of Utilitarian

from Human Functions, creation of potential for highest productivity,

achievement of greatest ease of communications, achievement of a practi
cal system for the distribution of goods and for the rendering of services.

The Metropolitan Core of Boston is too large and complex to permit a planning approach similar to those used for smaller cities like Fort Worth or Cincinnati, where the Core area was established as one tightly knit nucleus completely reserved for pedestrian movements and surrounded by transportation facilities consisting of loop roads, garages and Mass Transportation terminals.

A different approach has to be developed for the Boston Metropolitan

Core not only because of its greater size, its greater economic potential
and its specific characteristics, but also because in contrast to younger
cities like those aforementioned, Boston's Core Frame and Core Fringe are
fully developed. (There exists no so-called "gray area" which, without
economic sacrifices, would give the opportunity for construction of complex
loop roads and garage facilities.) Another significant difference between
Boston and other cities which have developed Revitalization programs for
their Cores is the fact that Boston is in possession of an excellent
network of rapid transportation lines, whereas other cities relied



solely on buses for Mass Transportation.

Our studies lead us, therefore, to a different planning approach for the Revitalization of the Foston Metropolitan Core, which appears to us to fit the needs and requirements of Boston and yet does not violate the basic tenets of our planning philosophy and especially that of the need for complete separation of Utilitarian from Human Functions.

We visualize the Boston Core of the future to be a cluster of urban nuclei.

Each nucleus would by its size and shape be suitable for use as a Pedestrian Area and within each nucleus, surface mechanized traffic would be held to a minimum on One-Purpose roads, which would be designed to serve solely the particular purpose for which they are introduced. Such roads would serve traffic to and from existing or new garages, and loading facilities.

Each nucleus would then be surrounded by circulation roads facilitating the movement of automobiles bound to garages, taxicabs driving to loading and unloading platforms near entrances to the Pedestrian Areas, and trucks and service vehicles bound to loading and service facilities.

The various nuclei would then be interconnected by:

- a. Overpasses or underpasses for pedestrians.
- b. Existing or new underground rapid transit.
- c. By a new Core Mass Transportation system which, as its main characteristic, would have modest speed and continuous availability of vehicles.



The enclosed schematic plan (Drawing #10) illustrates the arrangement of the nuclei and the manner in which access to them for Individual and Mass Transportation would be achieved.

The aim of the Revitalization planning would be to equip each one of these nuclei with a variety of land uses, yet at the same time to give emphasis to specific land uses which have historically and organically developed within the particular area.

We have named the various nuclei (just as a suggestion) in order to facilitate understanding and discussions. In the following we list the nuclei by their existing or proposed names and the land usages which would receive greatest emphasis in each individual one.

Nucleus No. 1 - Washington Street Center: Emphasis on retailing.

Other land uses - restaurants, offices, movie houses, automobile storage.

Nucleus No. 2 - Old Boston Center: Emphasis on the creation of a sightseeing district in which a number of historic buildings are grouped along Pedestrian Areas and plazas. Other uses - retailing, restaurants, lunch rooms, office buildings, hotels, automobile storage, and possibly residential. (The Old Boston nucleus forms a suitable link between Washington Street Center and Government Center.)

Nucleus No. 3 - Tremont Terrace: Consisting of the larger portion of Tremont Street along the public gardens and Common. Emphasis on high grade and high rise residential buildings with views over the Boston Common and Public gardens and with direct Accessibility to these



recreational areas by a Terrace above the present level of Tremont

Street. Other uses - retailing, restaurants, offices. (Tremont

Terrace will strengthen Washington Street Center.)

Nucleus No. 5 - New England Merchandise Center: (located between the South Station area and Washington Street Center). In this area we propose, because of poor physical condition of structures located there presently, complete clearance and the construction of a raised platform. Under this platform would be located transportation facilities as follows:

- a. A Core Transportation Line establishing direct connection between the South Street Terminal area and Washington Street Center.
- Roadways for trucks and service vehicles and taxicabs and possibly buses.
- c. Multi-deck garages which are partly to satisfy the demands of structures to be erected on top of the platform and partly to serve the needs of Washington Street Center.

The platform surface would represent a landscaped Pedestrian Area establishing a direct pedestrian connection between the New England Merchandise Center and Washington Street Center. On top of the platform we visualize high rise structures serving the following purposes:

A representative merchandise mart for both permanent and temporary exhibit and sale of merchandise of all types (similar to the Chicago Merchandise Mart); buildings containing show rooms for Massachusetts industries; hotels, restaurants, office building.

We realize that the promotion of a merchandise mart may be a



energetically. There is to our knowledge existing in Poston an institution called the World Trade Center which could be incorporated into the concept of the merchandise mart. We also believe that the electronics and space industries, men's wear industry, shoe industry and leather industry could be interested in participating in such a center.

In considering alternates for the land usage of the land area of Nucleus No. 4 we are starting from the conviction that it should not contain any land uses competitive to the Washington Street Center or the Entertainment Center and that it is also not as suitable as other areas for large scale residential development. Thus we appear to be restricted to the following possibilities:

- Enlargement of the financial center. That means new structures housing offices, banks, stock brokers, insurance companies, etc.
- 2. A general office building area.

In considering any of these alternates or others which might be considered one should be guided in our opinion by the following:

- 1. It would be highly desirable to support the activities of Washington Street Center, of the Entertainment Center and of all other Core function areas by bringing large numbers of employees and executives into this area which is so strategically located with relation to other Core nuclei.
- An intensive usage of these areas is indicated because of their superior accessibility for Mass Transportation and Individualized



Transportation and only a rajor development could fully utilize these possibilities.

Nucleus No. 5 - The Garment Center: The garment industry is one of the few industries which because of its special characteristics appears to us highly desirable for location within the Core. It is an industry which is typically operated by small enterprises at very high density of space usage. It is also one in which various activities involving general business and administration, design, show room activities and wholesale selling activities are intermingled with actual production activities. The various firms of the garment industry depend on each other for closest cooperation and, therefore, closest proximity. The feasibility of providing the firms of the garment industry with up-todate facilities has however been found in most cases to be highly problematic because of the low rentals which characteristically are being paid by this industry for so-called loft space. Buildings to be constructed under today's high building costs cannot possibly produce space which could be rented for amounts as low as the industry is presently geared to. Thus some economic formula would have to be found by which part of the construction cost could be absorbed by other means than the rentals which the garment industry is able to pay. It has been suggested that the garment workers' union should be consulted in this matter as their membership would be highly interested in a flourishing garment industry in Boston. The intermingling of other land uses within the structures of the garment industry like restaurants. lunch rooms, general offices, banks, etc., may prove to be helpful.



Thus we visualize in the long run a garment center on a raised platform which would directly connect with the platform of the New England Merchandise Center and would act as a link to the Entertainment District. The space underneath the platform would be used similarly to the use in the New England Merchandise Center. The platform itself would be a Pedestrian Area, and from the platform would rise buildings which would serve the garment industry for workshops, offices and show rooms; and secondarily, structures containing offices, restaurants, and possibly the Massachusetts College of Arts.

Nucleus No. 6 - The Entertainment Center: In considering the Entertainment Center, its boundaries for the purpose of overall conceptual planning should be widened to include the existing legitimate theaters, the large existing concert hall (music academy) and the Chinese Commercial area. The condition of the so-called Entertainment Center at this time is of such nature that physical planning measures alone will be of no help. The present area does not really deserve the term Entertainment Center.

In order to give physical replanning a chance to succeed the existing Unsuitable land uses will have to be eliminated and they will have to be replaced by suitable ones. It seems to us that a city of the size of Boston, if it should possess an easily accessible Core area with an attractive environment, should be able to re-establish interest in the performing arts including first-rate opera performances in a suitable



structure. Civic action similar to the one which has brought about in other cities a strengthening of the cultural life will be necessary to accomplish this aim. We are, however, not recommending the establishment of a one-sided exclusive cultural center, or center for the performing arts, but rather a pattern in which various related land uses are integrated with structures for the performing arts or other cultural activities. Such other land uses could be restaurants, bars, night clubs, residential buildings, and such retail facilities as are thematically connected with the cultural and performing art activities like bookstores, musical instrument stores, record shops, etc.

Nucleus No. 7 - Park Square Center: New development in this area should provide for intimate connections to the public gardens. Land usage emphasis on hotels, apartment hotels, high quality apartment buildings.

Other land uses - some retail and possibly offices. It is also important that this area be strengthened as a link between Washington Street Center and Back Bay.

#### Other important features of our planning approach are:

Achieving closest possible integration between the entire Core
area and Boston's unique urban recreational areas, namely the
Common and the public gardens. The intimacy of connection is
presently suffering because those streets which surround the
recreational areas carry heavy surface traffic, and pedestrian
crossings from the Core to the recreational areas are therefore
inconvenient.



- 2. Transfer of all land uses which appear Unsuitable for locations in the most dynamic central area of the City to other areas, like the Core Frame, the Core Fringe, and the Urbanized Boston Area. This means transfer of uses which demand, in relation to their productivity, excessive space such as warehousing, storage, service industries, industries in general, parking lots, parking garages of low productivity, etc.
- 3. Introduction of new productive facilities such as retail stores, residential structures, hotels, amusement facilities, theaters, office buildings, etc., to take the space of Unsuitable Land Uses or of buildings which are over-aged, or such buildings as do not take full economic advantage of the available land under improved economic conditions.
- 4. Rehabilitation of buildings which are structurally still sound in order to bring them physically and functionally up to date, and which, by their size and usage, are suitable for the Core environment.
- Provision of amenities which will create greater convenience, weather protection and variety.
- 6. Introduction of an internal transportation system within the

  Core area connecting the main activity nuclei with each other
  and with surrounding terminal facilities for Individualized

  Transportation (garages), and for Mass Transportation (commuter
  terminals, subway terminals, bus terminals).





- 7. Upgrading of the Environmental Quality by elimination of disturbing signs, a program for improved graphic expressions in outdoor advertising signs, etc., and introduction of landscaping (tree wells, flower beds), and expressions of the creative arts (fountains, sculptures, murals, etc.)
- Maximum efforts toward the creation of undisturbed public spaces for social meetings, civic events, exhibits, concerts, etc.
- Encouragement of a multitude of small enterprises of all types within the Core environment in order to create interest, color and variety.
- 10. Planning measures which will bring existing historic buildings to fullest effectivity, make them easily accessible and give them greatest exposure. (see Drawings #11 and #12)



## II. SPECIFIC CONCEPTS

We have developed up to now planning concepts for some of the nuclei within the CBD Redevelopment Area but not for all. We have concentrated on those areas which appear to us of the greatest strategic importance, and we recommend that these concepts should first be tho-roughly discussed before those for additional nuclei are formulated.

## 1. TREMONT STREET TERRACE

# A. Existing Conditions

Structures along Tremont Street facing the Boston Common and Public Gardens are generally of older vintage and modest height. There are some exceptions to this to which proper consideration can be given within the concept. There is, however, within the Tremont Street frontage a parcel of land which has been excluded from the Redevelopment project and for which a high rise apartment structure is presently under planning. The land usage proposed coincides with our proposed concept. It would be highly desirable if plans for this building could be developed (especially concerning the heights of the lower floors) in such manner that the new structures could be adapted to the concept either during the planning stage of the construction stage or later on in accordance with progress on Redevelopment planning, on the one hand, and on the projected structure on the other, We illustrate on Drawing #13 a section of the proposed structure indicating that the adaption could be easily accomplished.

they Dail



Tremont Street has heavy traffic loads which can be expected to grow because of the traffic arrangements planned for Government Center and because of the greater importance Tremont Street would achieve through Revitalization of the Core. The traffic volume moves slowly with resulting congestion partly because of pedestrian cross traffic moving from the Boston Common and Public Gardens towards the City Core.

#### B. Concept Aims

- 1. Improved traffic carrying capacity of Tremont Street by widening (achieved by inclusion of existing sidewalk into the transportation surface) and by removal of pedestrian cross traffic and many of the existing signals.
- Creation of intimate and convenient connection between the Core and the Boston recreational areas (Common and Public Gardens).
- 3. Creation of the highest possible potential for high rise residential structures with commercial enterprises on the first and possibly second floors along the Tremont Street frontage.
- 4. Improved Accessibility of Washington Street Center especially for service.

# C. Planning Elements of Concept (See Drawing # 14 )

1. Construction of a platform about 18-20 feet above the



existing Tremont Street level.

Reserving space under platform for mechanized traffic solely and increasing of traffic surface by including existing sidewalk area. Establishing access from this transportation surface to garages serving future buildings, the Washington Street Center area and to loading and serving facilities of new buildings along Tremont Street and structures of Washington Street Center.

2. The surface of the platform would be established as a wide, landscaped Pedestrian Area with the following additional facilities: Rest benches, fountains, small pavilions along the edge facing the park area serving various functions like refreshment stands, small shops, information bureaus, advertising kiosks, exhibit kiosks, etc., outdoor spaces for cafes, restaurants, bars, ice cream parlors along the building frontage with the proviso that these outdoor facilities could be enclosed with removable glass walls and roofs during the cold season.

3. Introduction of escalators and stairways on various points in order to establish easy pedestrian connection between the Common and the Metropolitan Core.

4. Connection of the level with newly projected second story shopping balconies in the Washington Street Center.

p

w wis stunds

-63-



# 2. WASHINGTON STREET CENTER

Inasmuch as most of the discussions of the Interim Report concentrated on the concepts for this strategic nucleus we will widen our discussion with respect to it and we are also providing additional graphic material for it.

# A. Existing Conditions

Along Washington Street and its side streets are located the major retail establishments of the Core, a number of restaurants, banks, movie houses, etc. The streets are narrow and there is a significant amount of friction between extremely slowly moving mechanized traffic of all types and pedestrian traffic. The area is well served by Mass Transportation and major stores especially depend nearly exclusively on foot traffic and Accessibility by Mass Transportation. Physical condition of structures varies greatly from very good to deteriorating and economic conditions of stores show great variety.

The negative influence which friction between shoppers and vehicles extends on the economic climate is illustrated by an article in the Boston Herald by Michael C. Gensen on Wednesday, March 27. After discussing the fabulous shopping spree of the preceding day it states, "One traffic officer said the crush of pedestrians and automobiles was the heaviest since last Christmas's record breaking shopping spree. Crowds were heaviest on Washington Street where traffic often was backed



up several blocks as pedestrians overflowed from the sidewalks into the streets."

From our own observation we know that whenever business activities in the Washington Street area are high the traffic of surface vehicles comes to a practical standstill. Only on such days and at such hours as business activities are extremely slow does traffic move at a modest rate. Thus it could be concluded: If business is good -- there is no traffic.

If traffic moves -- there is no business.

# B. Concept Aims

- 1. To make Washington Street Center economically and physically an outstanding shopping environment with features so unique that they could not be duplicated within any other shopping district in the Boston Metropolitan Region and thus would extend pulling power beyond the existing influence area.
- 2. In order to strengthen the economic climate of Washington Street Center it is necessary to contract the area of retail activities and to counteract the existing pattern which could be compared with a mountain peak sloping off on both sides decisively at first and then more slowly, stretching over considerable distances and petering out into marginal and sub-marginal valleys. The aim of the concept should be to convert these slopes



into a plateau of high level economics. In order to do so, however, it is necessary to fortify the sides of the plateau introducing strong merchandising units at the extreme ends of the plateau. We believe that the present situation containing one 100% peak from which business levels slope down dangerously into sub-marginal operations is an extremely undesirable one. In this respect I believe we can profit from studying the plans and operations of well designed regional shopping centers which aim at a store grouping which will make all locations within the center as desirable as possible.

- Increase in economic potential by adding some new establishments and rehabilitating existing ones.
- 4. Improvement of Accessibility for employees, shoppers, services and goods.
- 5. These concept aims we believe must be implemented by planning as no alternate means of strengthening the retail core exists.

# C. Alternate Concepts

Keeping the concept aims stated above in mind we have developed a series of alternate concepts with illustrations.

We will discuss these concepts and indicate in each case the degree to which they might be able to fulfill the concept aims.

### Alternate A:

This alternate is based on minimum action and

hav



minimum capital expenditures. Clearance would be used only for structural reasons or for providing land for some new parking garages (possible sites are indicated on Drawing # 7 ). Stress would be given to the rehabilitation and remodeling of buildings.

In order to ease some of the pedestrian and vehicular conflicts sidewalks would be widened. This could be done by: (See Drawing  $\frac{\pi}{2}$ 15)

a - widening of walks to 15 feet into the existing roadways, or

b - widening of walks to 15 feet into the existing buildings, or both.

These methods would be used throughout the Washington Street Center mcleus and could also be applied to other areas where there is heavy pedestrian-vehicular conflicts.

Other improvements that could be made are the correction of major traffic intersection problems; general improvement of street lighting, street furniture, traffic signaling; the planting of trees, etc.

We believe that this alternate would fall decisively short of our basic concept aims and therefore recommend against it. The small amount of new development would not be sufficient to reverse the present economic and physical decline of the Core. It would be difficult and impractical to cut into the ground floor of existing buildings. Traffic



congestion would not be alleviated, it's possible that in some cases where sidewalks are widened into the existing roadways that the traffic problems will be intensified.

#### Alternate B:

This alternate is based on the principle of complete separation of human activities (pedestrians, shoppers) from utilitarian activities (automobiles, trucks, buses, etc.).

There are two sections indicated on drawing #16.

Section A illustrates how mechanized traffic could remain on the ground and how shoppers could be moved on an upper balcony level at approximately second story height. This section is illustrated on the plan which appears on the same drawing.

Section B illustrates the possibility of leaving people on the ground and moving mechanized traffic onto an upper level. This scheme appears to be impractical because of the high cost which would be involved in constructing second story roads throughout the Washington Street area. Alternate B also contemplates the connection of the subway stations on the Boston Common side with the second story shopping level by escalators and bridges. It also introduces escalators on the extreme ends of the Washington Street Center near Milk Street, and Hayward Place and or Summer Street at Otis Street. Because this Alternate provides a complete separation of utilitarian



from human functions it would fulfill one of the major concept aims.

The concept of Alternate B is implementable but in our opinion it would maximize private capital investment and its execution would also result in the loss of considerable productive areas now located on the ground floor level. Inasmuch as the second level or a level slightly above the second floor would become the main shopping level all store operations which characteristically are utilized for first floor business activities would have to be moved up by one floor. This in turn of course means that typical second floor operations would have to be moved up to the third level, etc., etc., and if the retail square footage should remain the same, it would he necessary to either add one floor or to utilize existing upper floor space now used for offices or similar functions for merchandising. Quite aside from the tremendous cost which this would create for each individual merchandiser another difficulty arises. First floors especially in department stores are usually of greater floor height and better equipment as far as flooring materials and column enclosures are concerned than upper floors. The existing second floors could not with any amount of money be remodeled to give a first floor appearance because their floor height is considerably lower. Alternate B could be executed in the form of an



open shopping environment or in the form of an enclosed shopping environment by providing a roof above the third floor. However in the latter case serious problems concerning the ventilation of the roadway below the second floor pedestrian level would arise. This Alternate would improve circulation on existing streets because sidewalks could be removed and thus an easier flow of traffic accomplished. We are not in principle opposed to Alternate B but we believe that it is economically impractical and unfeasible.

### Alternate C:

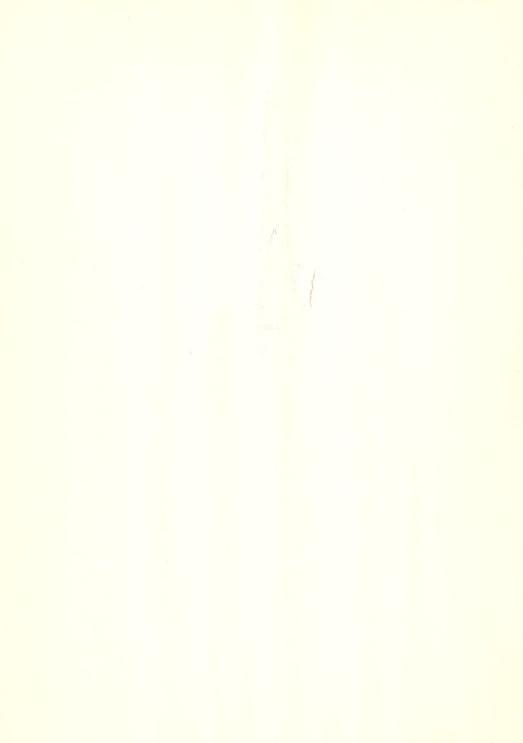
This alternate illustrates basically the concept which we have described in the Interim Report. It would of course include all the other features of improvements including the construction of new garages in the proximity of Washington Street Center. It is based on the concept of complete separation of human functions from utilitarian functions like Alternate B with the difference that it proposes a horizontal separation instead of a vertical one. In order to accomplish this horizontal separation it is necessary to introduce a circulatory Core loop road for which we have developed a number of alternate routings shown on the original material submitted with the Interim Report. Alternate C would be greatly helped if our concept for Tremont Terrace with the resulting better traffic flow



on Tremont Terrace and increased Accessibility for service vehicles, buses, taxicabs and cars to the Washington Street Center area could be implemented. Alternate C could be executed in accordance to the four sections shown on Drawing #17, namely either in accordance with Section 1 as a one level open mall system, or in accordance with Section 2 as a two level open mall system, or in accordance with Section 3 as a one level enclosed mall system, or in accordance with Section 4 as a two level enclosed mall system.

We believe that alternate C is feasible, practical and that it fulfills all of the concept aims. As far as the alternate sections are concerned, we believe that the enclosed mall has highest merit in spite of the larger construction and operating costs. We have indicated quite schematically on the plan the location of possible merchandising concessions which in our opinion would create sufficient rental income to amortize the additional construction and operating cost. We thus recommend Alternate C to your acceptance and within Alternate C the concept of the enclosed mall system, either one level or two level height. Only after further studies in Stage II will we be able to give you our final recommendations between these two sectional schemes.

In the foregoing and through the drawings which illustrate our remarks we have only dealt with concept principles and we are recommending that the concept of horizontal separation



of utilitarian from human functions as expressed through
Alternate C should be in principle accepted as the one
likely to be most feasible, practical and potentially able
of bringing about the fullest realization of the concept
aims. Once a principle decision as to the concept is made
we will be able to attack other problems and prove feasibility. Such questions are:

1. The extent and size of Washington Street Center and the intensity by which it should be developed. This question can be only resolved on the basis of economic research and we propose that the economic consultant to be appointed by BRA in the near future should evaluate the economic potentials created by the overall concepts for the CBD area, the planning measures proposed for other areas, the economic potential for each land usage group. He will have to give weight to the new influences created by the overall concepts by improved Accessibility, by Mass Transportation and Individualized Transportation, to the pulling force which a highly superior environmental character could create. His activity, of course, will have to be based to a large degree on judgment and it cannot be regarded as an expression of exact science. In employing judgment there are two dangers which must be avoided. One is to underestimate the potential newly created and therefore to under-design the amount of land usage for various areas. This would be extremely



dangerous because the pulling power of, for example,
Washington Street Center depends to a certain degree
on its size and on the combined impact of its enterprises. Inasmuch as one of the aims of Revitalization
is to broaden the tax base in order to lighten the
individual tax loads, an overly conservative approach
would obviously not be advisable. If in the judgment
of the economic consultant the presently outlined area
for the Washington Street Center nucleus should not be
sufficient, then it could be lengthened in two directions.
Another instrument for the creation of additional space
would be high intensity of use within the designated
area and in this respect the two level shopping scheme
which we proposed would make significant contributions.

The second danger which must be avoided is that of over-estimating the various land usage demands. If this over-estimate should turn out to be unrealistic, then difficulties in finding tenants or users for the totally provided space might arise.

It is hoped that the results of the economic analysis should become available to all parties concerned shortly but only after this is the case will it be possible to discuss these results and to arrive at a joint agreement concerning size and intensity of each



one of the nuclei and quite specifically, Washington

- 2. Routing of the circulatory Core loop and of minor loop roads connecting the Core loop with existing and new garages and loading facilities. We have indicated on our drawing the principle approach to this problem. Its details however cannot be resolved at this time. They depend not only on the findings of the economic consultant but also of the traffic consultant, on the individual needs and requirements of each of the real estate owners and tenants and on the technical and financial possibilities of the urban renewal process. In order to give an indication of the problems which arise and of possible solutions to them we have on the basis of preliminary discussions with various interested parties developed some rough ideas illustrated on our drawings and which we will discuss in the following.
- 3. Specific problem areas.

Drawing #18 (Filene's Franklin Store study): Besides
the aim of Revitalization it is, of course, desirable
within this overall concept to assist individual land
owners and merchants in achieving greater individual
success and greater efficiency in their operation. It
appears that the efficiency of Filene's operation, for
example, could be improved if certain of their operations



now being conducted in an outlying building would be brought into immediate adjacency of their store. Presently the buyers of Filene's have to take timeconsuming trips to a suburban warehouse in order to select merchandise for the various departments and branches of the Filene's organization. Our drawing therefore suggests that the block to the north of Filene's which is occupied by deteriorating buildings which are now mostly occupied by Raymond's should be acquired under urban redevelopment legislation and that new buildings should be constructed there. If this idea were acceptable, it would then be possible to construct three basement levels which would be connected underground to the existing Filene building basements. These three basement levels could then be utilized for the functions which now are taken care of in Filene's warehouse, they could also contain a central loading dock for Filene's. New stores could be erected on the first and possibly second floors of the new structure. We would then propose that upper floors of this structure would be utilized for offices or possibly even residences.

On Drawing # 19 we have also indicated two possible locations for the new Raymond's store. In selecting these locations we have been guided by the thought that



Raymond's would be more successful in keeping its present customers faithful to the store if their new location would be in the immediate vicinity of the existing one. On the other hand we feel that Raymond's should not be relocated in a new building on their present site, as this would require Raymond's to go through the costly operation of moving twice, namely once into a temporary location (during the time needed for demolition and new construction of the present building) and then a second time to their present site. We would like to stress that the ideas expressed above and in the drawing are only of preliminary nature and really should not have been expressed before Stage II is nearing completion. Much more study, much more information will be necessary before we would be able to state that we recommend such a solution.

Just as an example of how the new concept could be helpful to the other large store of the Washington Street
Center also, we would like to mention that the concept
creates the possibility of removing traffic from Avon
Street which presently makes crossing from one of the
Jordan Marsh buildings to the other inconvenient. It is
even possible to close Avon Street completely and to
permit Jordan Marsh to utilize its land area for a structure which would connect the two buildings which they



occupy on various sites intimately.

Drawing # 20 illustrates a suggestion which could solve the access and service problem of Gilchrist, Conrad & Chandler and all the other stores located in the block bound by Washington, Bromfield, Tremont, and Winter Streets. Inasmuch as negotiations concerning the utilization of the large movie theater for parking purposes seem to be underway, we suggest the following:

- 1. Remove the existing movie theater.
- 2. Construct in its place a new building of multiple land use functions:
  - A. In the basement service and delivery for all stores of block above described.
  - B. On the ground floor a taxi and bus terminal.
  - C. On a number of upper floors parking garages.
  - D. On the top floor a roof garden-like landscaped area from which would rise an 800 seat movie theater and various restaurants, bars and cafes.

We also have indicated on the drawing the idea of a shoppers club which we wish to describe briefly. It would be a membership club fashioned similarly to the various clubs which some of the airlines provide for their faithful customers at some of the larger airports. Membership would be acquired through nomination of any of the



Washington Street Center stores, which nomination in turn would depend on the shopping volume of the applicants. The club would provide lounges for resting and relaxation, a library featuring newspapers and magazines featuring ads of all Washington Street Center stores, rest room facilities, telephones, refreshment stands, lunch rooms and restaurants.

Again the ideas discussed here are really far ahead of the work program outlined for Stage I, and we mention them only in order to illustrate the advantages which could be worked out within the framework of the basic concept. One of the reasons why we propose the introduction of the roof garden features and the movie theater is in order to bring about a more equal usage of the parking garage facilities during business hours and office hours which in turn will help to amortize the cost of the garage facility and help to keep parking rates low.

# D. Planning Elements of the Concept (see Drawing "21)

1. Separation of Utilitarian from Human Functions in the following manner. All existing public surfaces on Washington Street and its side streets to be freed from mechanized traffic of all types and to be reserved for pedestrian traffic only. Additional pedestrian surfaces to be created on balconies connecting second floors of department stores with each other and giving the opportunity for new second floor enterprises and recreational facilities. Also creation of new pedestrian



surfaces in some below-ground areas in order to connect existing subway stations with each other and creation of shopping concourses in these areas.

Creating of movement space for trucks and service vehicles through introduction of a Core Loop road and Special Purpose Roads leading from the Core Loop to existing and new loading and service areas.

Introduction of accessory mechanized transportation for the moving of people on balcony levels.

- 2. Creation of Special Purpose Roads in order to achieve access to garages in the area.
- 3. Creation of an Enclosed Pedestrian Area by construction of roofs over Washington Street and its side streets above the upper edge of the second floor windows but in some cases higher or lower as existing conditions or special desires for emphasis require. Some of the center portions of these roofs to be further raised in order to allow the introduction of vertical or sloped or horizontal skylights.

Construction of a heating and air conditioning system to supply the Enclosed Pedestrian Area with fresh air of about 72° temperature at all times of the day and during all seasons.

Closing off of the Enclosed Pedestrian Area on all entrances and exits with a sufficient number of doors.

Provisions for illumination of the Enclosed Pedestrian

Area with the aim of achieving an "outdoorish" atmosphere for evenings and of an intensity which would be held sufficiently low not to interfere with the effectiveness of show window illumination.

Paving of the Enclosed Pedestrian Area on one plane between store front and opposite store front utilizing various materials and colors in order to achieve variety and interest.

Introduction of amenities within the Enclosed Pedestrian Area such as rest benches, orientation signs, announcement boards, flower beds, tree wells, refreshment stands, fountains, ponds, bird cages and works of creative art like sculptures and murals.

4. Remodelling of the fronts of retail stores and other enterprises along the Enclosed Pedestrian Area so that full advantage can be gained from its environmental characteristics. This especially concerns the removal of inner and outer doors and vestibules, in some cases removal of doors and show windows and their replacement by grilles to be closed only at night; the introduction of entrances to second floors reachable from the new balconies; removal of all awnings (which would be no longer necessary); new firm signs which, though individually treated, should conform with an overall policy concerning sizes of letters, use of neon, etc.

Some of the measures mentioned above will result in the adding of prime sales area now occupied by double doors,



vestibules, etc. Additional selling area will also be created along the balconies on second floors.

5. Creation of variety and interest by the introduction of small enterprises to be located in pavilions and kiosks constructed in the central area of the pedestrian environment. Such enterprises could be flower shops, news stands, cigar stands, souvenir shops, international specialties, refreshment stands, etc.

#### 3. OLD BOSTON CENTER

## A. Existing Conditions

Marginal retailing, historic buildings, surface parking lots, and office buildings occupy this area. Traffic conditions are extremely congested and there is great friction between pedestrian and mechanized traffic.

#### B. Concept Aims

Utilize its inherent interest of historic buildings, namely
the South Meeting House, the Old Book Store and its adjoining
building, the present City Hall, the King's Chapel, and the old
State House by giving them fullest effectiveness and visibility,
and rehabilitate the area in such manner that it could become a
tourist and sightseeing attraction. Continue most of its existing
suitable functions and add new suitable ones to them. Establishment of this area as an effective link between Government Center



and Washington Street Center integrating the traffic as well as vistas of the new structures of Government Center with the remainder of the Core.

## C. Planning Elements of Concept (see Drawing #21)

1. Separation of Utilitarian from Human Functions by methods similar to those described for Washington Street Center with most of the future surface within Old Boston Center converted into Open Pedestrian Areas with protected sidewalks. The protection of the walkways would be accomplished by the introduction of colonnades in new buildings, the remodelling of old buildings in such manner that colonnades would be created there too, or by the introduction of canopies and overhangs.

Some of the existing street surfaces would be widened to form plazas like, for example, the one adjoining the South Meeting House, where existing one-story and two-story buildings would be demolished and a new structure possibly containing a hotel would be placed in such manner as to open the view onto the Old Book Store and the adjoining old buildings. The Open Pedestrian Areas would receive amenities like rest benches, tree wells, flower beds, and new pavement befitting the historic character of the area. Also introduced into the Pedestrian Areas would be mementos of Boston and Massachusetts history which are suitable for outdoor exhibits. Usage of existing structures, especially on their first floors, would change in order to comply with the historic character of the



Center. A book shop should be reintroduced into the Old Book Store building. Other suitable uses would be restaurants, coffee shops, souvenir shops, antique stores, picture galleries, refreshment stands, information bureaus, photographic shops, etc.

again?

The future use of the existing City Hall building will be of great significance for the success of Old Boston Center.

It is our recommendation that this building be utilized for a purpose which creates great and permanent public interest and will draw people to Old Boston Center from the Metropolitan Region and beyond. Possibly this building could be utilized for steadily changing exhibits arranged by the various Boston museums and art institutes (which unfortunately are all now located outside of the Core) similar in character and attraction to changing exhibits which are now arranged in the Modern Museum in New York. It appears that the City Hall building with its high ceilings would lend itself well for such a purpose.

## 4. PARK SQUARE AND BOYLSTON STREET FRONTAGE

# A. Existing Conditions

Heavy surface traffic creates on the one hand separation of the adjoining Core area from the public recreational areas and on the other hand suffers from the friction created by frequent pedestrian crossings. Buildings along these frontages with few exceptions are small and old.



### B. Concept Aims

To bring about a closer integration between recreational areas and Core areas and thus open up potentials for highly desirable high rise residential buildings, hotels, apartment hotels, offering vistas over the recreational areas.

### C. Planning Elements of Concept

There are a number of alternate planning steps which could be taken to achieve these concept aims. A platform similar to those described for the Tremont Street frontage is one possibility.



#### III. CORE TRANSPORTATION.

The purpose and character of Core Transportation is distinctly different from that of those transportation arrangements which are to establish Accessibility.

The function of Core Transportation is to act as an auxiliary device to foot traffic to be utilized in those cases where distances become rather long for walking or by those who are tired from walking, especially those who are generally not equipped to do a lot of walking or who are laden with packages.

Core Transportation will be especially significant where important terminal facilities on the Fringe of the Core are existing or projected and where a facilitation of quick and convenient access to heart areas of the Core would be valuable.

In considering where and how Core Transportation should be introduced we have kept in mind that the distances which people are willing and even eager to walk vary greatly with the environmental qualities. The following tabulation attempts to analyze these differences.



#### ACCEPTABLE WALKING TIMES

	Minutes	Feet
In a highly attractive completely climatized environment	20	5000
In an attractive weather protected environment	10	2500
In an attractive non-weather protected area, assuming inclement weather	5	1250
In an unattractive environment (garage, crossing street)	3	750

Factor: 3 mi./hour, 250 ft./minute

The character of Core Transportation must be different from Accessibility transportation for the following reasons:

- A. Distances are comparatively small and therefore high speeds are not required.
- B. Because distances are small the time difference between walking and using transportation is minimum and the user of Core Transportation is therefore not willing to wait for vehicles. This is the reason why shuttle buses have usually been unsuccessful.
- C. Also because distances are small the user of Core Transportation is not willing to walk very high up or very far down in order to reach the transportation media.

It appears therefore that Core Transportation should be based on the principle of continuous availability of a transportation carrier. Transportation based on the principle of the continuous moving belt



will fulfill the needs and requirements of Core Transportation most ideally. In our present concepts two types of conveyor belt transportation are being suggested. One is a Carveyor system. We regard the Carveyor system only as one of various transportation media which could be utilized for Core Transportation. Other Core Transportation systems are discussed in our transportation report, which is part of the Interim Report. Though we want to make it absolutely clear that the Carveyor system is not an essential portion of the overall concept, we would like to discuss it because of its novelty and special merits in greater detail. This system consists of platforms onto which seats are mounted. The platforms move on a conveyor belt at a speed of about 15 mph. However, when approaching a station the platforms are transferred from the belt onto a roller system which decreases the speed to  $1\frac{1}{2}$  mph. Passengers are entering the platforms with continuously available seats from a loading belt which moves at the same speed as the platforms in the station. Assuming station stops about 1000 feet distant, an average speed of between 8-10 mph can be attained.

We visualize the use of the Carveyor system within an Enclosed Pedestrian Environment on balconies. Line #1 would have its starting point within the South Station Terminal, with a station stop under the platform of the New England Merchandise Center and a second terminal on Summer Street at the crossing of Washington Street.

A second line may start on the corner of Washington Street and
Summer Street and move through the Washington Street Enclosed
Pedestrian Mall to Boylston Street. As an alternative we suggest that



the second line be routed undermeath the Tremont Terrace platform and be continued with the Back Bay area. A continuation of this line to Prudential Center would appear desirable.

Preliminary capital cost and operating figures which were supplied by the manufacturer's representative reveal that the cost of the Carveyor system described above could be amortized over 15 years at a rate structure of 0.05 per ride. Capacity of Line "I would be approximately 10,000 per hour or by use of the full capacity in an 8 hour period, 80,000 in each direction of 160,000 in two directions.

We believe it reasonable to assume a total usage per day of Line #1 by 40,000 people.

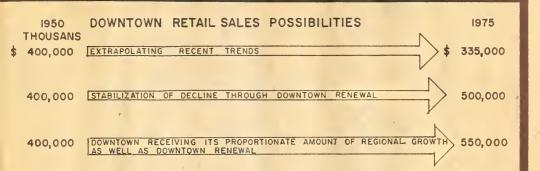
Within the under-the-common garage and connecting this garage with Washington Street Center we visualize a moving belt installation underground routed in such manner that the digging of an underground route would occur under existing walks in the Common area. Such a Speedwalk Line (trade name for moving sidewalk) would also facilitate transportation of inhabitants of the Beacon Hill area to the Washington Street Center. Additional information about Carveyor and Speedwalk will be found in the Appendix of the Interim Report.



## METROPOLITAN POPULATION

1950	1960	1970	1975	1980
2,400,000	2,600,000	2,800,000	2,9-3,000,000	3,0-3,200,000

	DIAN METROPOLITAN	INCOME	PER FAMILY	1
1950	1960	1970	1975	1980
\$ 3,500	\$ 6,700		10,000 - 11,50	00

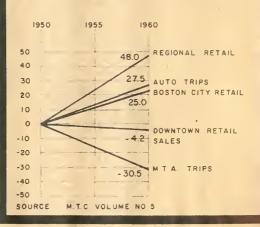


# MAJOR LAND USE SPACE IN PROJECT ARE'A

USE	EXISTING	PROJECTED	INCREASE
RETAIL &	10000000	1,000,000	10
OFFICE	20 000 000	1250,000	
APARTMENT	250	1 000	400
TRANSIENT	7,000	500	

- (I) PROJECTIONS FOR PROJECT AREA CONSIDER SPACE UNDER CONSTRUCTION OR PLANNED
- (2) REPRESENTS ALL UNITS IN THE CENTRAL BOSTON AREA

# PERCENT CHANGE OF RETAIL SALES AND PERSON TRIPS



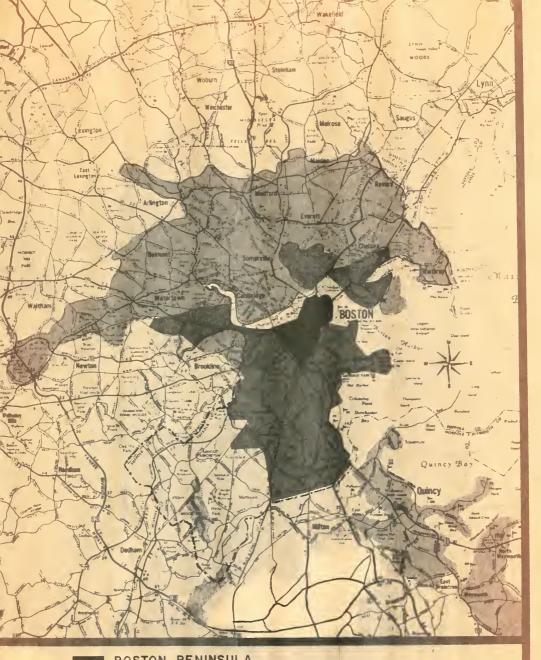
ECONOMIC SURVEYS





C B D PROJECT AREA





BOSTON PENINSULA

URBAN AREAS WITHIN CITY LIMITS

URBAN AREAS OUTSIDE OF CITY LIMITS

SUBURBAN AREA WITHIN CITY LIMITS

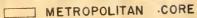
SUBURBAN AREA OUTSIDE OF CITY LIMITS

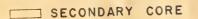
CITY LIMITS

REGION









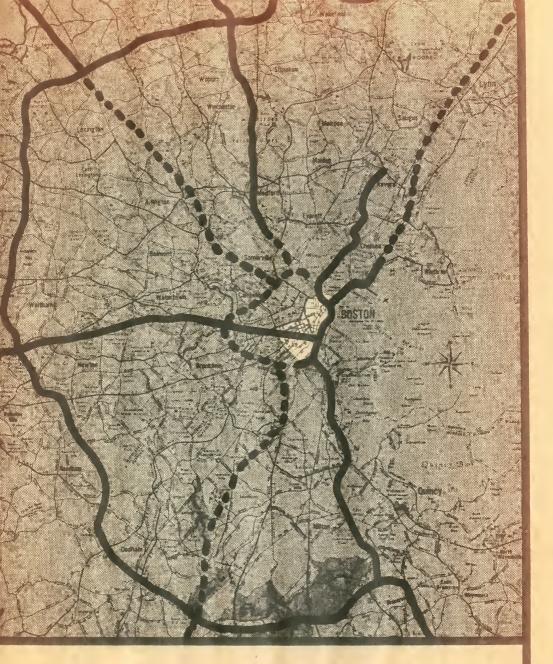
CORE FRAME

CORE FRINGE

METROPOLITAN AREAS

PENINSULA





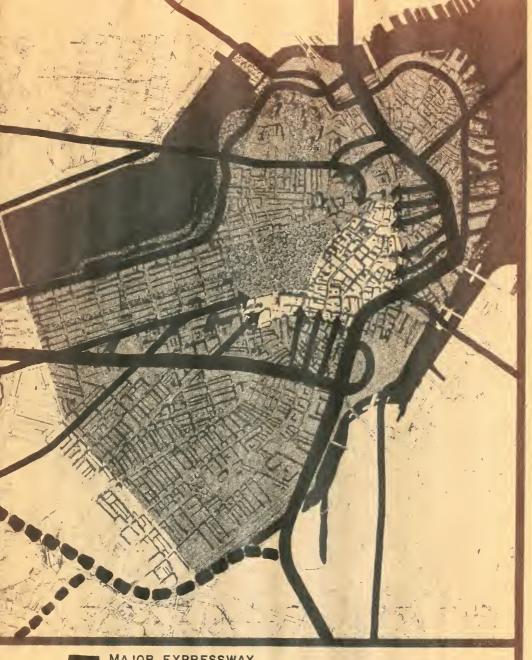
MAJOR EXPRESSWAY

PROPOSED EXPRESSWAY

INDIVIDUAL TRANSPORTATION

REGION





MAJOR EXPRESSWAY

PROPOSED EXPRESSWAY

CORE FEEDER STREETS

LOCAL COLLECTION - DISTRIBUTION

INDIVIDUAL TRANSPORTATION

PENINSULA





THROUGH TRAFFIC

LOCAL TRAFFIC

CENTRAL ARTERY

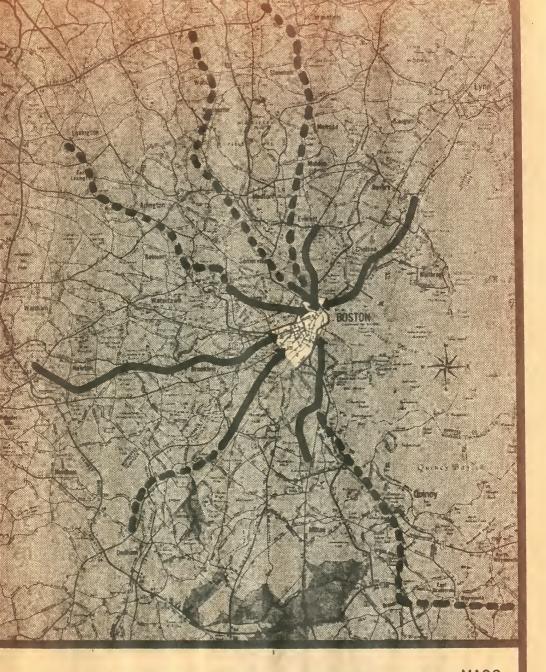




PARKING PLUS PRODUCTIVE USES
PARKING LOCATIONS
PARKING ONLY

CORE





EXISTING LINES

PROPOSED LINES

MASS TRANSPORTATION

REGION





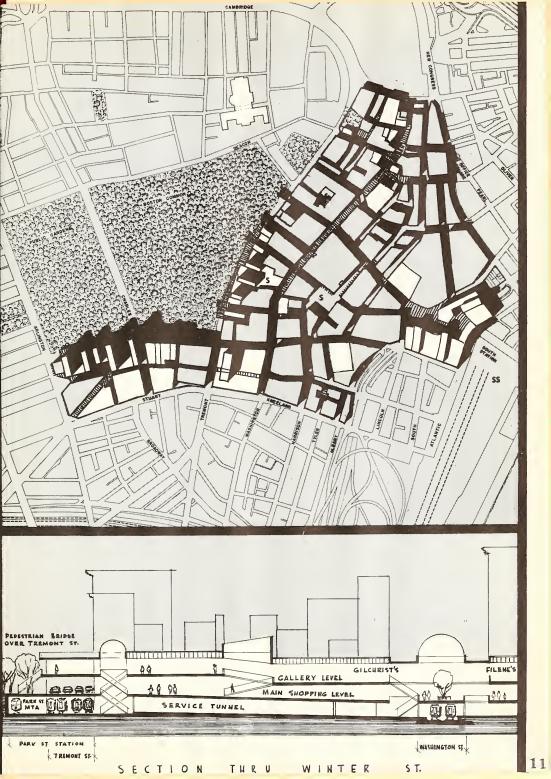
MASS TRANSPORTATION

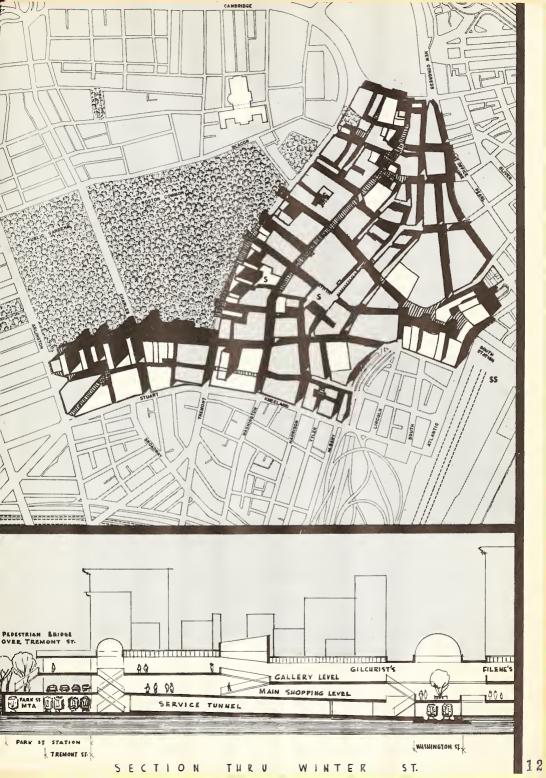
PENINSULA



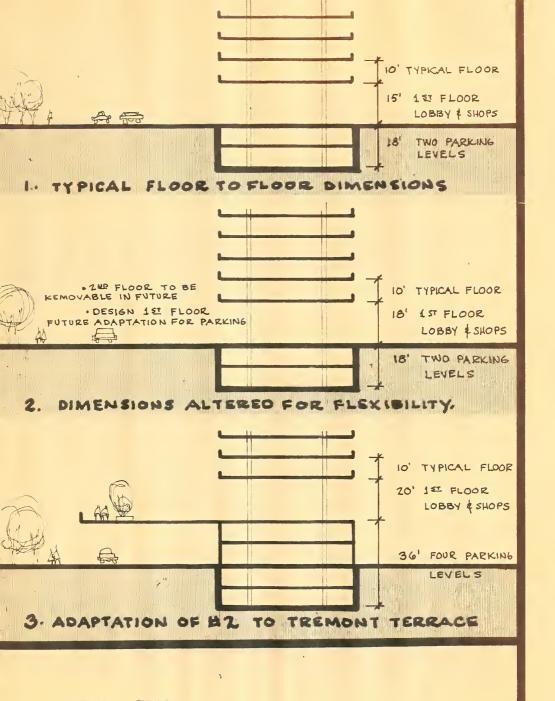


NUCLEUS	FUNCTION	SUPPORTING USES
1 WASHINGTON STREET	RETAIL	OFFICE, RESTAURANT, MOVIES, PARKING
2 TREMONT TERRACE	RESIDENTIAL	RETAIL, OFFICE, RESTAURANT, TOURIST, PARKING
3 OLD BOSTON CENTER	HISTORIC-TOURIST	RETAIL, OFFICE, HOTEL, RESTAURANT, RESIDENTIAL, PARKING
4 NEW ENGLAND MERCHANDISE CENTER	OFFICE-DISPLAY	RETAIL, HOTEL, RESEARCH, RESTAURANT, PARKING
5 GARMENT CENTER	FASHION - DISPLAY	RETAIL, OFFICE, RESTAURANT, DISPLAY, PARKING
6 ENTERTAINMENT CENTER	THEATER - ENTERTAINMENT	RETAIL, OFFICE, RESTAURANT, TOURIST, PARKING
7 PARK SQUARE	RESIDENTIAL-HOTEL	RETAIL, OFFICE, PARKING



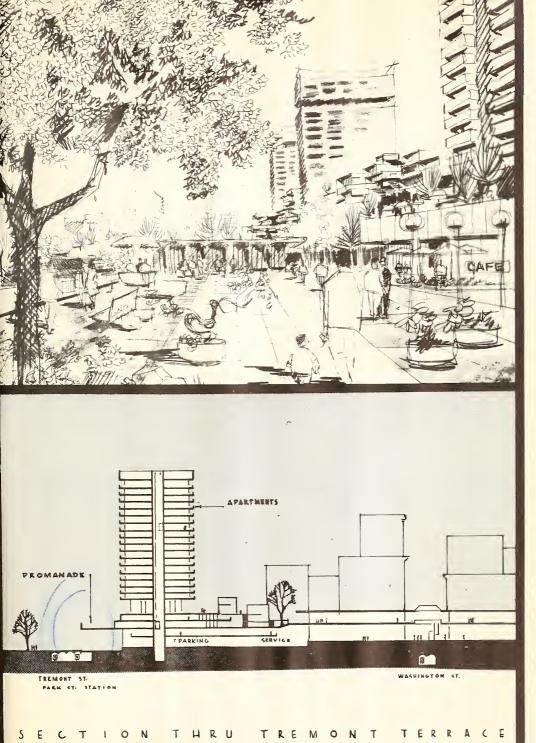




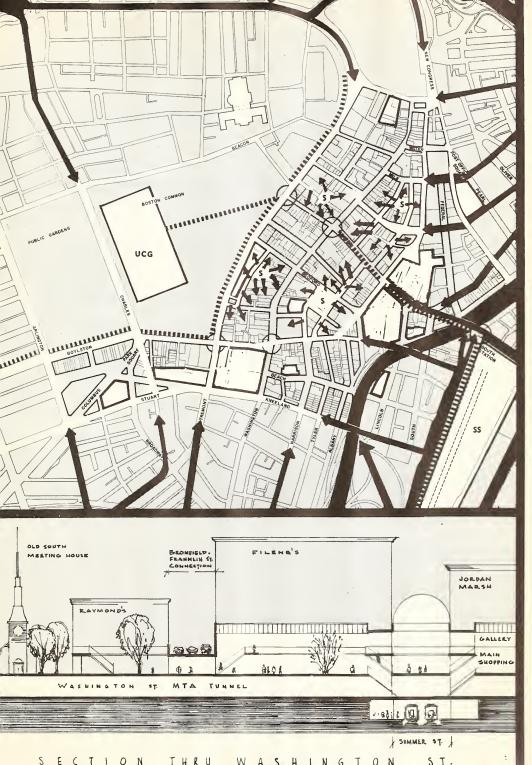


DETAIL STUDY
ADAPTATION OF NEW BUILDINGS TO THE NEW TERRACE

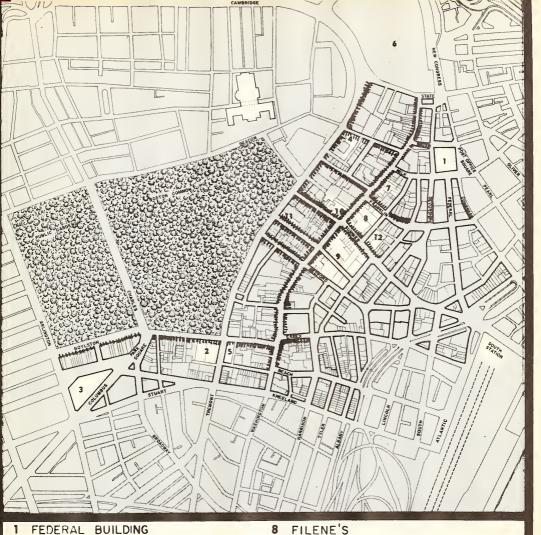










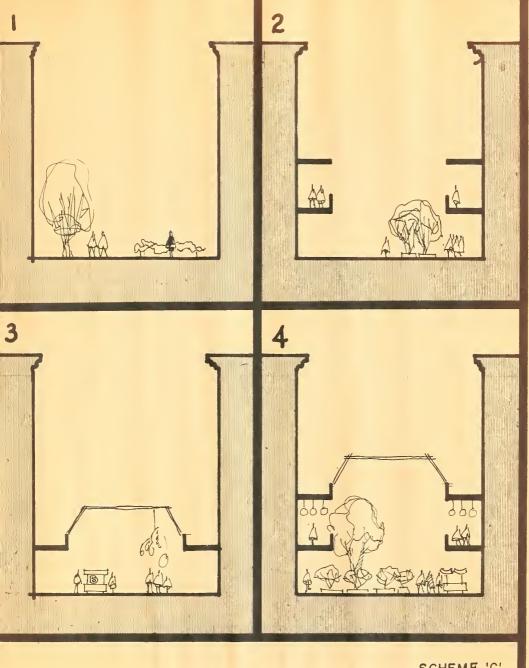


- 2 COLONIAL & LITTLE BUILDING
- STATLER BUILDING
- PARKER HOUSE
- TOURAINE HOTEL
- GOVERNMENT CENTER
- 7 RAYMOND'S

- 9 JORDAN MARSH
- 10 GILCHRIST, CONRAD &
  - CHANDLER
- 11 STERN'S
- 12 KENNEDY'S
- 13 SOUTH STATION

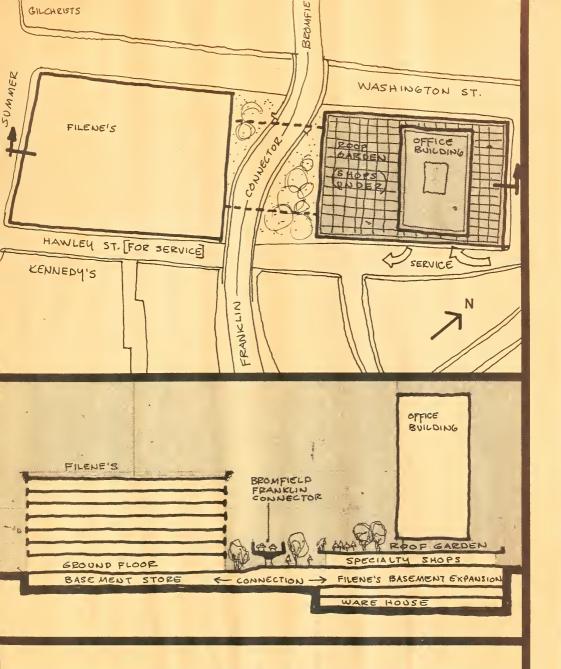






SCHEME 'C'
POSSIBLE SECTIONS





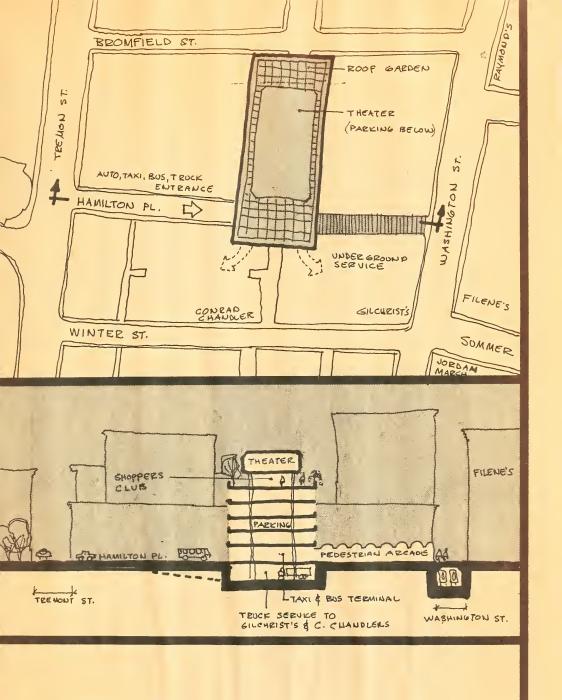
DETAIL STUDY
FILENE'S, FRANKLIN ST





DETAIL STUDY
POSSIBLE NEW LOCATIONS FOR RAYMOND'S





DETAIL STUDY
GILCHRIST, CONRAD CHANDLER



